

REMARKS

Claims 29, 37-43 and 45-50 have been amended to recite 542 contiguous amino acids. Support for this amendment is found in the specification, e.g., on page 120 at line 3. Claims 51-56 have been amended to recite 74 contiguous nucleotides. Support for this amendment is found in the specification, e.g., on page 120 at line 10.

New claims 57-62 are supported by the specification at, e.g., page 113, line 28 to page 119, line 25; page 43, lines 8-18; and page 44, line 12 to page 45, line 23.

New claims 63-68 are supported by the specification at, e.g., page 119, lines 21-25.

Rejections Under 35 U.S.C. §112, first paragraph

The Examiner rejected claims 29, 34-36, and 54-56 under 35 U.S.C. §112, first paragraph for lack of enablement. The Examiner stated that the specification lacks complete deposit information for ATCC Accession Nos. 97880 and 97881. The Examiner also stated that it is unclear whether the conditions of 37 C.F.R. §1.801-1.809 have been met for the various deposits referred to in the pending claims.

Applicant has amended the specification to add complete deposit information for ATCC Accession Nos. 97880 and 97881. Enclosed is a statement by the undersigned, attorney of record, explaining that the deposits referred to in the claims were made under the terms of the Budapest Treaty and that all restrictions

on public access to the deposits will be removed upon grant of a patent on the present application.

The Examiner rejected claims 29, 37-39, 43, and 45-50 under 35 U.S.C. §112, first paragraph. The Examiner stated that the specification does not support the limitation "15 contiguous amino acids." Claims 29, 37-39, 43, and 45-50 have been amended to refer to 542 contiguous amino acids rather than 15 contiguous amino acids. Support for this amendment is found in the specification, e.g., on page 120 at line 3.

#### Rejections Under 35 U.S.C. §103

##### Claims 40, 51 and 54-56

The Examiner rejected claims 40, 51 and 54-56 under 35 U.S.C. §103 as unpatentable in view of U.S. Patent No. 5,487,985 ("the '985 patent") and Zubay. According to the Examiner, U.S. Patent No. 5,487,985 teaches a 26 nucleotide sequence (SEQ ID NO:10) that, under the conditions specified in the rejected claims, would hybridize "in smaller amounts" to a nucleic acid molecule having the sequence of SEQ ID NO:2 or one of the other sequences specified in the rejected claims. The Examiner argued that it would have been obvious to produce a polypeptide using the 26 nucleotide sequence of SEQ ID NO:10 of the '985 patent because "it is well known in the art the polypeptide sequences are encoded by nucleic acid sequences." However, SEQ ID NO:10 of the '985 patent is described as an "arbitrary primer" that can be used to generate a genomic fingerprint. There is no suggestion that SEQ ID NO:10 encodes a polypeptide much less that any

polypeptide it might happen to encode has any value. Thus, there is no motivation to generate a polypeptide using SEQ ID NO:10. Moreover, given that SEQ ID NO:10 lacks--in any reading frame--an ATG codon, it is difficult to see how it could encode any polypeptide whatsoever. Thus, the cited references cannot render the polypeptides of claims 40, 51 and 54-56 obvious.

However, to expedite prosecution, Applicant has amended claims 51 and 54-56 to recite nucleic acid molecules that comprise 74 nucleotides. SEQ ID NO:10 of the '985 patent fails to meet this limitation. In addition, Applicant has amended claim 40 to recite a polypeptide comprising 542 amino acids. Any polypeptide that might be encoded by SEQ ID NO:10 cannot meet this limitation. Accordingly, Applicant respectfully requests that these rejections be withdrawn.

Claims 41, 42 and 52-56

The Examiner rejected claims 41, 42 and 52-56 under 35 U.S.C. §103 as unpatentable in view of U.S. Patent No. 5,565,340 ("the '340 patent") and Zubay. According to the Examiner, the '340 patent teaches a 44 nucleotide sequence (SEQ ID NO:5) that, under the conditions specified in the rejected claims, would hybridize "in smaller amounts" to a nucleic acid molecule having the sequence specified in the rejected claims. The Examiner argued that it would have been obvious to produce a polypeptide using the 44 nucleotide sequence of SEQ ID NO:5 of the '340 patent because "it is well known in the art the polypeptide sequences are encoded by nucleic acid sequences."

SEQ ID NO:5 of the '340 patent is described as an "adapter" that can be used to modify a DNA fragment so that it is rendered either permissive or non-permissive for PCR amplification. There is no suggestion that SEQ ID NO:5 encodes a polypeptide much less that any polypeptide it might happen to encode has any value. Thus, there is no motivation to generate a polypeptide using SEQ ID NO:5. Moreover, given that SEQ ID NO:10 lacks--in any reading frame--an ATG codon, it is difficult to see how it could encode any polypeptide whatsoever. Thus, the cited references cannot render the polypeptides of claims 41, 42 and 54-56 obvious.

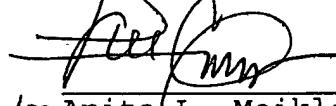
However, to expedite prosecution, Applicant has amended claims 41 and 42 to recite polypeptides that comprise 542 nucleotides. Any polypeptide that might be encoded by SEQ ID NO:5 of the '340 patent cannot meet this limitation. In addition, Applicant has amended claims 52-56 to recite nucleic acid molecules comprising 74 nucleotides. SEQ ID NO:5 of the '340 patent does not meet this limitation. In view of these amendments, Applicant respectfully requests that these rejections be withdrawn.

#### CONCLUSION

It is respectfully submitted that the pending claims are in condition for allowance and such action is respectfully requested.

Please charge any fees, or make any credit, to Deposit  
Account No. 06-1050.

Respectfully submitted,

  
Lee Crews  
Reg. No. 43,547  
for Anita L. Meiklejohn, Ph.D.  
Reg. No. 35,283

Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110-2804

Telephone: 617/542-5070  
Facsimile: 617/542-8906  
388054.B11